

## REMARKS

This REQUEST FOR CONTINUED EXAMINATION and RESPONSE is in reply to the Office Action mailed August 15, 2006. A Petition for Extension of Time is submitted herewith, together with the appropriate fee.

### I. Summary of Examiner's Rejections

Prior to the Office Action mailed August 15, 2006, Claims 1-8 and 25-37 were pending in the Application. In the Office Action, Claims 1-8 and 25-37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Van Huben et al., (U.S. Patent No. 6,327,594, hereafter Van Huben) in view of Sim et al., (U.S. Patent No. 6,857,012, hereafter Sim).

### II. Summary of Applicant's Amendments

The present Response amends the Specification and Claims 1-2, 4, 7-8, 25, 30, 33, and 35, and cancels Claims 3 and 31, leaving for the Examiner's present consideration Claims 1-2, 4-8, 25-30, and 32-37. Reconsideration of the Application, as amended, is respectfully requested. Applicant respectfully reserves the right to prosecute any originally presented or canceled claims in a continuing or future application.

### III. Specification

The Specification has been amended as shown above. Applicant respectfully submits that the proposed amendments to the Specification were made to provide filing application information to Cross-Referenced Applications which were not known at the time of filing of this Application, and that no new matter has been added to this Application.

### IV. Claim Rejections under 35 U.S.C. § 103

In the Office Action mailed August 15, 2006, Claims 1-8 and 25-37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Van Huben et al., (U.S. Patent No. 6,327,594, hereafter Van Huben) in view of Sim et al., (U.S. Patent No. 6,857,012, hereafter Sim).

#### Claim 1

Claim 1 has been amended by the current Response to more clearly define the embodiment therein. As amended, Claim 1 defines:

1. *(Currently Amended) A storage medium for storing data for access by an application program being executed on a computer system, comprising:*
  - a data structure stored in said storage medium, the data structure including or referring to:*
    - a name;*
    - a content repository identifier;*
    - a property;*
    - a property definition;*
    - a path; and*
    - a reference to a parent data structure;*
  - wherein the data structure is logically part of a virtual content repository (VCR);*
  - wherein the VCR represents a plurality of content repositories logically as a single content repository from the application program's standpoint; and*
  - wherein the path uniquely specifies the data structure's location in the VCR.*

Claim 1, as currently amended, defines a storage medium for storing data for access by an application program being executed on a computer system, comprising a data structure that includes a name, a content repository identifier, a property, a property definition, a path, and a reference to a parent data structure. The data structure is logically part of a virtual content repository that represents a plurality of content repositories logically as a single content repository from the application program's standpoint. The path included in the data structure uniquely specifies the data structure's location in the virtual content repository.

The advantages of the storage medium defined by Claim 1 include that the virtual content repository represents a plurality of content repositories logically as a single content repository from an application program's viewpoint. Furthermore, by including a reference to a parent data structure and the path specifying the location of the data structure in the virtual content repository, the data structure eases traversal of the virtual content repository hierarchy because one traversing the hierarchy always knows the data structure's location in the virtual content repository and can also easily traverse back to a parent data structure using the reference to the parent data structure. Applicant respectfully submits that these features are neither disclosed nor suggested by the prior art.

Van Huben discloses methods for shared data management in a pervasive computing environment through the use of a centralized Data Management System (DMS) (col. 2, lines 42-47). The DMS architecture is based on a PFVL paradigm (col. 10, lines 25-27), wherein objects

inside the DMS can be classified according to five basic attributes: PACKAGE, VARIANCE, LEVEL, FILETYPE, and VERSION (col. 10, lines 39-56). Although Van Huben discloses a complex data repository comprised of multiple sub-repositories (col. 14, lines 9-30), Van Huben does not appear to disclose a virtual content repository that represents one or more content repositories logically as one single content repository from the application program's viewpoint. Furthermore, Van Huben also does not appear to disclose a data structure including a reference to a parent data structure because although Van Huben discloses that Packages may be embedded within a higher level Package (figure 3A and col. 11, lines 1-12), the Packages do not appear to include a reference to a parent Package.

Claim 1 has also been further amended to more clearly define the data structure as including or referring to a path, wherein the path uniquely specifies the location of the data structure within the virtual content repository. It is respectfully submitted that this feature is also not disclosed by Van Huben.

Sim discloses methods for delivering large files to users on a network (col. 1, lines 18-21). As disclosed in Sim, in order to minimize delays, large files should ideally be stored at the edges of the network, which are locations on the network in close proximity to end users (col. 2, lines 52-58). For example, an Internet Service Provider (ISP) is regarded as being at the edge of the network and an end user connected to an ISP in order to access the network is then considered to be beyond the edge of the network (col. 2, lines 58-60). In Sim, large files are broken into multiple portions and the portions are stored in nodes around the edge of the network (col. 8, lines 52-54). Each node is configured to appear to a requesting user as if it has a large file stored locally even though portions of the file are really stored on other nodes located throughout the network (col. 8, lines 62-65), enabling a requesting user to access a large file by requesting the file from a node even though the node might only contain a portion of the file locally within the node (col. 9, lines 5-7).

The nodes disclosed in Sim are also organized in a logical virtual tree structure (col. 25, lines 27-28) that is primarily used for the communication of control information amongst the nodes (col. 12, lines 53-55). When a large file is uploaded from a client to a node, the node where the file is uploaded breaks up the large file into pieces and uses the logical virtual tree structure to traverse other nodes in order to place pieces of the large file onto other nodes (col. 19, lines 60-65). Conversely, when a large file is requested from a node by a client, the node uses the logical virtual tree in retrieving the necessary pieces of the large file before reassembling the large file and sending the file to the requesting client (col. 22, lines 36-65). Thus, a complete file is represented to a user requesting the file at a particular node, even

though only a portion of the file is stored at that node. In contrast, instead of representing an incomplete portion of a file as a complete file to a user as disclosed in Sim, the virtual content repository defined in Claim 1 represents multiple content repositories logically as a single repository from the standpoint of an application program.

Furthermore, Applicant respectfully submits that, notwithstanding the comments provided above, it would not have been obvious to one of ordinary skill in the art to combine each of the cited references in the manner suggested, so as to anticipate the claimed embodiment. In order to establish a prima facie case of obviousness, three criteria must be met: (1) a suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings; (2) a reasonable expectation of success; and (3) the prior art references when combined must teach or suggest all the claim limitations. MPEP §2143. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In addition, the fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

In the present instance, Applicant has been unable to find any suggestion in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art that would render the resultant combination obvious or desirable. While the Office Action submits that Van Huben does not explicitly disclose a virtual content repository that represents one or more content repositories logically as one single content repository, it was also submitted in the Office Action that it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine Van Huben and Sim because the teaching of Sim would have allowed the system in Van Huben to be optimized, so that large payload files could be distributed across networks (including the Internet and corporate intranets) using a transport layer network overlay to push content to the edge of the network as suggested by Sim. However, Applicant has been unable to find any suggestion or desire in Van Huben to include the distribution of large payload files across networks. In fact, instead of suggesting the distribution of large payload files by breaking up large files into pieces and pushing the pieces of the file to the edge of a network as disclosed in Sim, Van Huben discloses the storing of data from pervasive computing devices into a single centralized Data Management System (col. 5, lines 40-46). As such, Applicant respectfully submits that the suggested combination of references lacks evidentiary support by the prior art.

In view of the comments provided above, Applicant respectfully submits that the embodiment defined by Claim 1 is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

#### **Claim 25**

In the Office Action mailed August 15, 2006, Claim 25 was rejected as being anticipated by Van Huben. The Office Action cites the Package Manager component of the Data Management System disclosed in Van Huben as anticipating the virtual content repository of the storage medium by the embodiment claimed in Claim 25. As disclosed in Van Huben, the Package Manager comprises a plurality of functions, which are grouped into isolated Managers with standardized interfaces, and can be combined to form larger, more complex, applications (figure 2, element 21; col. 12, lines 24-33). Thus, it appears from the above description that the Package Manager is a group of functions which can perform operations on the Data Management System, but is not a group of content repositories. Furthermore, Van Huben does not appear to disclose an object that includes a reference to a parent object. While Van Huben discloses Packages that may be embedded within a higher level Package (figure 3A and col. 11, lines 1-12), the data objects themselves do not contain a reference to a parent object.

For similar reasons as provided above with respect to Claim 1 in addition to the above remarks, Applicant respectfully submits that Claim 25, as amended, is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

#### **Claims 2, 4-8, 26-30, and 32-37**

Dependent Claims 2, 4-8, 26-30, and 32-37 are not addressed separately, but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim and further in view of the additional limitations of these claims. Applicant respectfully submits that Claims 2, 4-8, 26-30, and 32-37 are similarly neither anticipated by, nor obvious in view of, the cited references, and reconsideration thereof is respectfully requested. It is also respectfully submitted that these claims also add their own limitations which render them patentable in their own right. Applicant respectfully reserves the right to argue these limitations should it become necessary in the future.

#### **Claims 3 and 31**

Claims 3 and 31 have been canceled by the current Response, rendering moot the rejection of these claims. Applicant respectfully reserves the right to prosecute the canceled claims in a continuing or future application.

**V. Conclusion**

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and reconsideration thereof is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

Enclosed is a PETITION FOR EXTENTION OF TIME UNDER 37 C.F.R. § 1.136 for extending the time to respond up to and including January 16, 2007.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: January 16, 2007

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